

WHAT IS CLAIMED:

1. (Currently Amended) A method for decoding video data, said method comprising:

writing a start code starting at a byte in a middle portion of a data word in a compressed data buffer memory by a transport processor;

writing a starting address associated with the byte in a table by said transport processor; and

fetching data from the memory starting from the byte in the middle portion of the data word by a video decompression engine, said video decompression engine decompressin the data from the memory starting from the byte in the middle portion of the data word, thereby resulting in decompressed video data; and

writing the decompressed video data to a frame buffer.

2. (Original) The method of claim 1, wherein the start code is associated with a slice.

3. (Original) The method of claim 1, wherein the data word comprises at least 16 bytes.

4. (Original) The method of claim 1, further comprising:

writing another start code to another byte in a middle portion of another data word in the memory;

writing another address associated with the another byte in the table; and

wherein fetching data from the memory starting from the byte further comprises:

fetching data from the memory starting from the byte and ending with a byte preceding the another byte.

5. (Original) The method of claim 4, further comprising looking up the address in the table.

6. (Original) The method of claim 5, further comprising looking up the another address in the table.

7. (Currently Amended) A system for decoding video data, said system comprising:

a compressed data buffer memory comprising a plurality of data words, for storing a start code starting at a byte in a middle portion of a particular one of the data words;

a table for storing a starting address associated with the byte; and

a direct memory access module for providing data from the memory starting from the starting address in the middle portion of the data word;

a video decompression engine for decompressing the data from the memory starting from the starting address in the middle portion of the data word, thereby resulting in decompressed video data; and

a frame buffer for storing the decompressed video data.

8. (Original) The system of claim 7, further comprising:

a video transport processor for writing the start code starting at a byte in a middle portion of the particular data word in the memory.

9. (Original) The system of claim 7, wherein the start code is associated with a slice.

10. (Original) The system of claim 7, wherein the data word comprises at least 16 bytes.

11. (Original) The system of claim 7, wherein the video transport processor writes another start code to another byte in a middle portion of another data word in the memory and wherein the table stores another address associated with the another byte in the table and wherein the direct memory access module fetches data from the memory starting from the byte and ending with a byte preceding the another byte.

12. (Original) The system of claim 11, further comprising:

a master processor for looking up the address in the table.

13. (Original) The system of claim 12, wherein the master processor looks up the another address in the table.

14. (Previously Presented) The system of claim 7, wherein the direct memory access module further comprises:

a buffer comprising a plurality of data words for storing the video data from the starting address;

a first masking register for discarding a portion of a first data structure that precedes the starting address, the first masking register comprises a plurality of bytes corresponding to byte positions of the data words; and

a state machine for loading the first masking register with a pattern wherein each byte of the plurality of bytes in the first mask register that corresponds to a byte position that is less than the four least significant bits of the starting address are loaded with a first value, and wherein each byte of the plurality of bytes in the first mask register that corresponds to a byte position that is equal or greater than the four least significant bits of the starting address are loaded with a second value.

15. (Original) The direct memory access module of claim 14, wherein the first value is a hexadecimal 0 and wherein the second value is a hexadecimal F, and further comprising:

an arithmetic logic unit for performing a logical AND operation between a first one of the plurality of data words in the buffer and the first masking register.

16-18. (Cancelled)